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187

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,609	02/23/2004	Gary L. Cochran	7089-18	8316

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EXAMINER

SHAKERI, HADI

ART UNIT PAPER NUMBER

3723

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicant(s)	Applicant(s)	
	10/784,609	COCHRAN ET AL.	
	Examiner	Art Unit	
	Hadi Shakeri	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>022304&040904</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "84" has been used to designate both return line and control valve. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the vertical support must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. The drawings are objected to because in Fig. 1 lead lines for upper and lower arms point to the pivot points instead of the arms. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim R jections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 11, 12, 14, 18-26, 29 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim 4, "at least one vertical slide" renders the claim indefinite because it is unclear what is being claimed. Specification as originally filed does not define the vertical slide. The only reference to a vertical slide is an example of other means or method for mounting the drum and cover assembly to the frame (120), which is not described nor illustrated.

Regarding claims 18-26, "a mechanism to hydraulically vertically raise...correspondence with the rotation of said gauge wheel" as recited in section (d) of claim 18 renders the claims indefinite for making the scope unascertainable. Embodiments described for Figs. 1-9, disclose a machine wherein the grinding assembly is raised and lowered by a pivotal movement or action, e.g., page 11, line 4. Applicant in Fig. 10 discloses an embodiment wherein the assembly is raised and lowered vertically relative to the fame, however, no structures and structural relationship between the elements are disclosed for this embodiment and such movement. The relative vertical movement of the assembly does not require the structures and structural relationship as disclosed for the pivotal movements of embodiments of Figs. 1-9. While applicant is entitled to a generic claim for a machine that operates by vertical movement as broadly disclosed on page 12 for embodiment of Fig. 10, the Applicant cannot claim a machine for vertical movement including the structures described for embodiments of Figs. 1-9, e.g., gauge wheel causing said vertical movement, the bell crank, pattern wheel, etc.

Art Unit: 3723

It is noted that pistons (80), (70), which have a vertical component, relative to the frame and slide relative to the rods, are considered for application of prior art, for the claims' limitations as best understood.

A rejection under 112 first paragraph for claiming subject matter without sufficient support by the specification as originally filed, is not applied at this point since it appears the deficiency is of clarity rather than enablement.

7. Claim 11 recites the limitation "said trolley" in line 1. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 12 recites the limitation "said gauge wheel" in line 2. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 14 recites the limitation "said gauge wheel" in line 1. There is insufficient antecedent basis for this limitation in the claim.
10. Regarding claim 23, the scope is unclear, is applicant claiming (129), if so, it is unclear how a spring biasing the wheel and brace to contact the road biases the assembly to raise?
11. Regarding claims 29 and 30, the dependency renders the claims indefinite. The method claims 29 and 30 depend from the apparatus claim 19.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 3723

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 18-20 and 27-30 (as best understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas et al. (5,957,620).

Thomas et al. discloses all of the limitations of claim 27, i.e., a method of grinding or milling a surface comprising of providing an hydraulic grinding assembly (parent application 08/513,355, US 5,607,255) mounted on a surface mounting portion, e.g., pivot points at the support wheels, and raising/lowering the grinding assembly in correspondence to the rotation of an advancing a gauge wheel, e.g., (112).

Regarding claims 28-30, Thomas et al. meets the limitations, i.e., hydraulic drive (12:55); pattern wheel (108) offset from the gauge wheel.

Regarding claims 18-20 (as best understood), Thomas et al. meets the limitation, i.e., a surface following portion (supporting the axel for the support wheels), grinding assembly mounted to said portion, gauge wheel (e.g., 114, 170, incorporated parent US Patent 5,607,255), a mechanism to hydraulically raise and lower the assembly in correspondence to the wheel, wherein the assembly is vertically raised relative to the surface; the apparatus further including a pattern wheel (e.g., 182) driven by a sprocket chain by the gauge wheel.

14. Claims 1-11, 13-19 and 21-23 (as best understood) are rejected under 35 U.S.C. 102(e) as being anticipated by Dickson (6,402,252).

Dickson discloses all of the limitations of claims 1 and 18, i.e., a grinding machine including a surface following frame (12), a hydraulically grinding assembly (74) and a mechanism causing the assembly to be raised and lowered relative to the frame in correspondence with rotation of a gauge wheel (100) in contact with the surface.

Art Unit: 3723

Regarding claims 2-10, 13-19 (as best understood), Dickson meets the limitations, e.g., grinding assembly pivoted to the frame (Figs. 2 and 3); vertical slide, e.g. (48, 52, 58, 55, 62), pivot arm (48, 62, 55), hydraulic actuators (52, 58) mounted on the grinding assembly (assembly not defined by claim, connection through 62 or 55), extended or retracted by the gauge wheel, pattern wheel (106).

Regarding claims 11 and 21-23, Dickson meets the limitations, e.g., bell crank (defined by, e.g., 64, 84, 70, 68) pivotally mounted to the frame (though 72, 48) an activation "link" (e.g., 58, between the bell crank and the wheel) to the displacement wheel, wherein advancement and retraction of the link causes the bell crank to actuate said raising and lowering; and/or a bell crank (46, 64) with one arm (58) having an actuation rod (124) "linked" to the pattern wheel (e.g., wires 116), wherein the rotation of the pattern wheel causes said bell crank to rotate actuating said raising and lowering.

Note that in an apparatus claim, lacking structures to define the apparatus reading over prior art, functional/narrative language as broadly recited is met by prior art as indicated above.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Thomas et al. or Dickson in view of Kennedy (4,463,989).

Thomas et al. or Dickson meets all of the limitations of claim 26, as indicated above, except for a spring biasing the gauge wheel to contact the ground. Supporting contacting

Art Unit: 3723

wheels with spring to dampen the ride are known in the art as evident by Kennedy. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of Thomas et al. or Dickson with spring for the gauge wheel as taught by Kennedy to enhance the operation by dampening the ride and/or to remedy minor irregularities on the surface.

Allowable Subject Matter

17. It appears claims 12, 24 and 25 include allowable subject matter and would be allowable over prior art of record if amended to overcome the rejections under 112, 2nd paragraph as applied above.

18. The following is a statement of reasons for the indication of allowable subject matter: although prior art discloses raising and lowering the grinding assembly relative to the frame in correspondence with a gauge wheel, and further suggest to one of ordinary skill in the art to rearrange the parts (to make the assembly pivot relative to the frame rather than the wheel axel, modification considered within the knowledge of one of ordinary skill in the art), it does not reasonably suggest pivotal movement of the assembly relative to frame directly coupled to the gauge wheel, including the structures as recited in the above claims.

Conclusion

19. Prior art made of record and not relied upon are considered pertinent to applicant's disclosure. Thomas et al., O'Konek and Mertes et al. are cited to show related inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Thursday.

Art Unit: 3723

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hadi Shakeri', is positioned above the printed name and title.

Hadi Shakeri
Primary Examiner
Art Unit 3723
January 19, 2005